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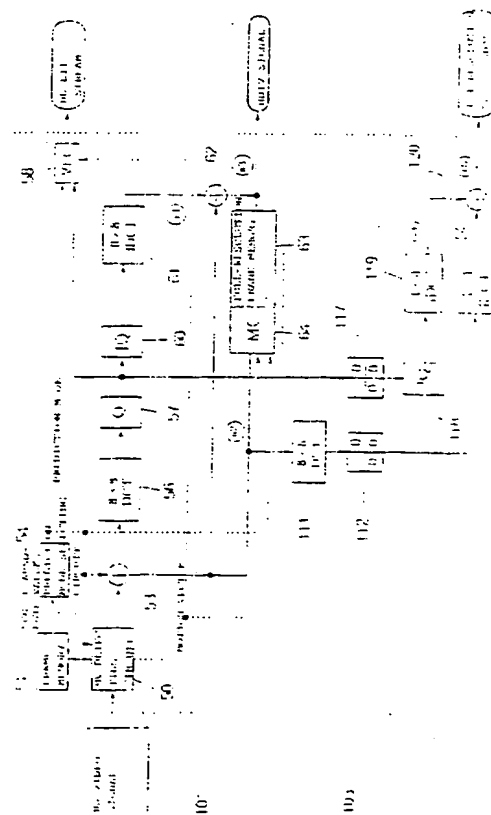
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(54) **Image signal coding and decoding and image signal recording medium.**

(57) The present invention reproduces an input image of half the normal resolution with respect to the vertical and horizontal directions by processing a coded bit stream of a normal resolution.

Difference signal (mismatching error signal) representing the difference between a predicted image of the normal resolution and a predicted image of a half resolution with respect to the vertical and horizontal directions is coded and the coded difference signal is transmitted. When producing the predicted image, image data is subjected to motion compensation according to a specified prediction mode.

**FIG. 1**

EP 0 577 428 A3

## EUROPEAN SEARCH REPORT

Application Number  
EP 93 30 5182

### DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.CLS)
X	SIGNAL PROCESSING. IMAGE COMMUNICATION, vol.4, no.3, June 1992, AMSTERDAM NL pages 245 - 262, XP000270232 VANDENDORPE 'Hierarchical transform and subband coding of video signals' * the whole document *	1,2,4-6, 10	H04N7/13 H04N7/137
A	---	8,9,11, 16,17, 19-21, 23,30-32	
X	SIGNAL PROCESSING OF HDTV, III, September 1991, TURIN, IT pages 523 - 530, XP000379990 CHIANG ET AL 'Compatible Coding of Digital Interlaced HDTV Using Prediction of the Even Fields from the Odd Fields' * abstract * * page 525, paragraph 3 * * page 526, paragraph 2 * * page 527, paragraph 2 - page 528, line 1 * * figures 2-4 *	16,17, 20,21, 23,24, 26,27	
A	---	1,2, 4-10, 12-15, 22,30-33	
			TECHNICAL FIELDS SEARCHED (Int.CLS)
			H04N
The present search report has been drawn up for all claims			
Place of search	Date of completion of the search	Examiner	
THE HAGUE	8 August 1994	DIPPEL U.H.R.	
CATEGORY OF CITED DOCUMENTS		T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons A: technological background O: non-written disclosure P: intermediate document &: member of the same patent family, corresponding document	
X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure P: intermediate document			



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### CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- ☐ All claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for all claims.
- ☐ Only part of the claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claims:
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

### LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirement of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet -B-

- ☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
- ☒ None of the further search fees has been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims.

namely claims 1-27, 29-33



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# EUROPEAN SEARCH REPORT

Application Number  
EP 93 30 5182

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.5)
A	SIGNAL PROCESSING OF HDTV, III, September 1991, TURIN, IT pages 353 - 360, XP000379972 DUFOUR ET AL 'A HDTV compatible coding scheme for distribution purposes' * abstract * * page 354, last paragraph - page 356, paragraph 1 * * page 359, line 1 - page 360, paragraph 1 * * figures 2,4 *	1,2, 5-17, 20-27, 30-33	TECHNICAL FIELDS SEARCHED (Int.Cl.5)
X	US-A-5 001 561 (HASKELL ET AL) * column 2, line 17 - line 26 * * column 4, line 17 - line 68 * * figure 2 *	23	
A	EP-A-0 485 230 (VICTOR COMPANY OF JAPAN LTD) 13 May 1992  * column 1, line 33 - column 2, line 2 * * column 4, line 21 - column 5, line 12 * * figures 1-3 *	26,27	
A	EP-A-0 321 318 (TAT FRANCAIS REPR SENT PAR LE MINISTRE DES POSTES, DES T L COMMUNICA) * column 2, line 48 - column 3, line 17 * * figure 1 *	1,2,10, 11,17, 30,31,33	
A	IEEE SIGNAL PROCESSING MAGAZINE, vol.8, no.4, October 1991, NEW YORK US pages 14 - 38, XP000259548 RIOUL ET AL 'Wavelets and Signal Processing' * figures 2,11 *	3,4,18, 19	
The present search report has been drawn up for all claims.			
Place of search THE HAGUE		Date of completion of the search 8 August 1994	Examiner DIPPEL U.H.R.
<p><b>CATEGORY OF CITED DOCUMENTS</b></p> <p>X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure P: intermediate document</p> <p>T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons A: member of the same patent family, corresponding document</p>			

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EP 93 30 5182 -B-

**LACK OF UNITY OF INVENTION**

The Search Division considers that the present European patent application does not comply with the requirement of unity of invention and relates to several inventions or groups of inventions, namely:

1. Claims 1-27, 29-33 : Multistandard video codec using the difference of the predicted signal and a low frequency part of the DCT-coefficients.
2. Claim 28 : Image signal decoder using different DCT-coefficients in case of frame/field-DCT when decoding interlace images..

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